

Abstract of the Disclosure

An evacuation system for high-rise buildings includes an evacuation tube that extends vertically from an entrance on an upper floor to ground level, and a carrier that descends freely through the tube to swiftly carry a person from the upper floor to the ground. A storage tube holds multiple carriers near the entrance to the evacuation tube. The evacuation tube is configured to control the rate of descent of the carrier via established radial clearances and resulting progressively increasing pneumatic pressured-air damping under the carrier, to achieve an initial rapid descent, then a slower descent as the carrier approaches ground level. Exiting the evacuation tube in the carrier is controlled through large sequenced valves that establish an airlock between the inside of the tube and the outside environment.